METHOD FOR PRODUCTION OF CYCLIC POLYSULFIDE COMPOUND AND RUBBER COMPOSITION CONTAINING THE SAME

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ABSTRACT OF THE DISCLOSURE

A method of production of a cyclic polysulfide having the formula (I):



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wherein x is an integer of 2 to 6, n is an integer of 1 to 15, and R indicates a substituted or unsubstituted C_2 to C_{18} alkylene group or a substituted or unsubstituted C_2 to C_{18} alkylene group including an oxyalkylene group comprising:

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reacting a dihalogen compound of the formula X-R-X wherein, X independently indicates a halogen atom, and R indicates a substituted or unsubstituted C_2 to C_{18} alkylene group or a substituted or unsubstituted C_2 to C_{18} alkylene group including an oxyalkylene group and an alkali metal polysulfide of the formula M_2S_x wherein, M is an alkali metal and x is an integer of 2 to 6, by a two-phase system in an incompatible mixed solvent of a hydrophilic and lypophilic solvent.